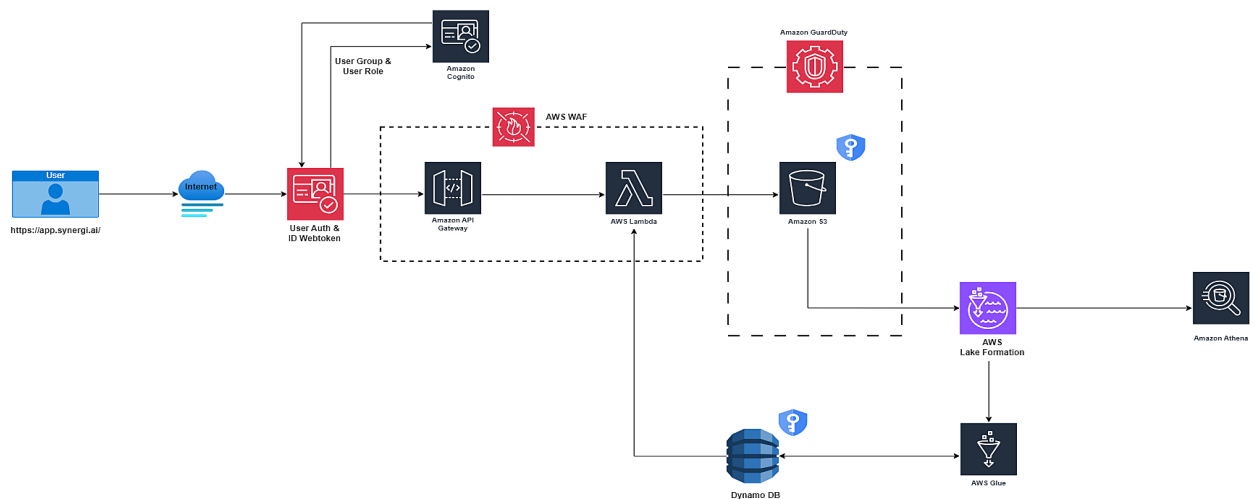


Comprehensive AWS Cloud Infrastructure Architecture Overview

High-level Overview of a System's Architecture



User Interaction

- **User:** Represents the end-user interacting with the system.
- **Internet:** The medium through which the user connects to the service.
- <https://app.synergi.ai/>: The URL or endpoint where the user accesses the application.

Authentication and Authorization

- **Amazon Cognito:** An AWS service that provides user sign-up, sign-in, and access control.
- **User Authentication & ID Web-token:** A mechanism for authenticating a user and issuing/verifying a token for identity verification.

Core Services

- **Amazon API Gateway:** Acts as a front door to manage API calls, including traffic management, authorization and access control, monitoring, and API version management.
- **AWS Lambda:** A serverless compute service that runs code in response to events and automatically manages the computing resources.
- **AWS WAF (Web Application Firewall):** Protects the application from common web exploits.
- **Amazon S3 (Simple Storage Service):** An object storage service offering scalability, data availability, security, and performance.

Security and Monitoring

- **Amazon GuardDuty:** A threat detection service that continuously monitors for malicious activity and unauthorized behavior.

Data Storage and Processing

- **DynamoDB:** A fast and flexible NoSQL database service for all applications that need consistent, single-digit millisecond latency at any scale.
- **AWS Glue:** A fully managed extract, transform, and load (ETL) service that makes it easy to prepare and load data for analytics.
- **AWS Lake Formation:** A service that makes it easy to set up a secure data lake.

Data Analysis

- **Amazon Athena:** An interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.

Connectivity and Flow

- The arrows indicate the flow of data and control from one service to another, showing how users interact with the system, how data is protected, processed, stored, and analyzed.